

TOKYO 2000-50079650

WHAT IS CLAIMED IS:

1. A ceramic carrier comprising a substrate ceramic and a multitude of pores or elements capable of supporting a catalyst component directly on the surface of the substrate ceramic, which contains metal elements having NO<sub>x</sub> absorbent capacity.  
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2. The ceramic carrier according to claim 1, wherein the pores capable of directly supporting the catalyst component comprise at least one kind selected from among a group consisting of defects in the ceramic crystal lattice, microscopic cracks in the ceramic surface and missing defects of the elements which constitute the ceramic, and the elements capable of directly supporting the catalyst component are elements  
10 which substitute for a part of the constituent elements of the substrate ceramic.  
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3. The ceramic carrier according to claim 1, wherein the defects in the ceramic crystal lattice which constitute the pores capable of directly supporting the catalyst component are formed and NO<sub>x</sub> absorbent capacity is given by substituting a part of the constituent elements of the ceramic with the metal elements having NO<sub>x</sub> absorbent capacity.  
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4. The ceramic carrier according to claim 1,  
25 wherein NO<sub>x</sub> absorbent capacity is given by supporting the metal elements which have NO<sub>x</sub> absorbent capacity in the pores capable of directly supporting the catalyst component.
5. The ceramic carrier according to claim 1,  
30 wherein the metal element having NO<sub>x</sub> absorbent capacity is an alkali metal element, an alkali earth metal element, a rare earth element or a transition metal element.
6. The ceramic carrier according to claim 1,  
35 wherein the substrate ceramic includes cordierite as the major component.
7. The ceramic carrier according to claim 1

wherein the carrier has a form of at least one kind selected from among a group consisting of a honeycomb, pellets, powder, a foam body, a fiber and a hollow fiber.

5        8. The ceramic carrier according to claim 1, wherein the pores which can directly support the catalyst component have a diameter or width 1000 times the diameter of the catalyst ion to be supported or smaller, and the density of pores is  $1 \times 10^{11}/\text{L}$  or higher.

10      9. A ceramic catalyst body comprising the ceramic carrier of claim 1 and a catalyst component supported directly on the surface the ceramic carrier without forming a coating layer.

15      10. The ceramic catalyst body according to claim 9, wherein the catalyst is supported in the vicinity of the metal elements having NO<sub>x</sub> absorbent capacity.

11. The ceramic catalyst body according to claim 9 wherein the catalyst component is a noble metal.